MOLTEN HYDRIDE FUEL CELL

Abstract of Disclosure

A fuel cell assembly comprises at least one fuel cell. The fuel cell comprises an anode and a cathode held in a spaced apart relationship by at least one spacer element comprising an electrically insulating material. A proximal end of the spacer element is in contact with the cathode, and a distal end is in contact with the anode. An electrolyte is disposed between, and in contact with the anode and the cathode. The electrolyte comprises a molten salt having a hydride ion conductance number greater than about 0.95 at a fuel cell operating temperature. A fuel gas inlet, adjacent to the cathode, is provided for delivering a fuel gas to the electrolyte. An oxidizing gas inlet, adjacent to the anode, is provided for delivering an oxidizing gas to the electrolyte. An exhaust port is in fluid communication with the anode.

Figures

[redacted]